

REMARKS

Claims 3-9 and 11-24 were pending in this application. Claims 4, 11, 12, 14, 17, 19-21 and 24 have been amended. Claims 3, 5-9 and 23 have been cancelled. No new matter has been added.

ARGUMENTS

Claim Rejections under 35 USC 112

In response to the rejections under 35 USC 112, Claims 7-9 have been cancelled.

Claim Rejections under 35 USC 102

The invention as presently claimed is not anticipated by Seckerson et al. or by Esposito.

The present claim amendments clarify the distinctions between the four planes and define also the manner of closing of the clip. One aspect of the present the invention is the at-least-three-locations opposed compressing action, similar in principle to pinching a tube between one's thumb and both of the index and third fingers together. In addition, the line of compression of the tube provided by the thumb (equating to the reaction surface or third contact surface in the claim) is slightly offset from the tube's precisely true transverse plane (i.e., from the first plane occupied by the base portion) to the fourth plane which allows the reaction surface to lie at a slight diagonal angle across the tube. This lengthens the effective pinch line across the tube and brings one of the transverse extremities of the diagonally inclined pinch line under the reaction surface (third contact surface) closer to the first contact surface (arm) and the other one of the transverse extremities closer to the second contact surface (arm). This improves the occluding cooperation between the pinching surfaces. See Fig. 4 and accompanying description. Neither Seckerson et al. nor Esposito disclose these features and, therefore, do not anticipate the presently claimed invention.

Claim Rejections under 35 USC 103

It is respectfully submitted that the structure defined in amended Claim 24 is not obvious from Seckerson et al., Esposito or Cirino et al., whether taken alone or in any obvious combination. There was no suggestion or motivation in the prior art to offset the four planes of the base portion, first arm, second arm and contact surface in the way now defined in Claim 24, for the simple reason that the at-least-three-location longitudinally spaced pinching action, with the contact surface itself set at an angle to the body passageway, is a completely different action and effect to the action and effect required from the prior art clips.

Furthermore, the Seckerson et al. and Cirino et al. prior art clips were not seeking to prevent fluid flow through a compressible tube, let alone the body passageway (with all the surrounding issues of patient safety and product reliability) with which the present invention is concerned.

In contrast, the clip of the present invention provides the novel type of at-least-three-location pinch closure of a body passageway in the manner claimed and described above. The provision of this closure arrangement and the offsetting of the fourth and first planes leads to a surprisingly effective closure action. This closure action is so efficient that it makes available not only the use of this type of resilient clip to close body passageways in surgical procedures, but also makes available the use of shape-memory metals such as Nitinol, which have a relatively weak resilient closing force. By disposing the third contact surface somewhat diagonally across the transverse width of the body passageway, a possibility which is opened up by the use of at-least-three-location pinch closure, the effective pinch line across the tube is lengthened in comparison with a non-diagonal straight-across pinch line, and it brings one of the transverse extremities of the diagonally inclined pinch line closer to the first contact surface (arm) and the other one of the transverse extremities closer to the second contact surface (arm). This improves the occluding cooperation between the pinching surfaces. See Fig. 4 and accompanying description.

Accordingly, the cited prior art does not make out a prima facie case of obviousness of the presently claimed invention.

CONCLUSION

Applicant submits that the present application is in condition for allowance and respectfully requests such action. If the Examiner has any questions that can be answered by telephone, please contact the undersigned attorney of record at the telephone number listed below.

It is requested that, if necessary to effect a timely response, this paper be considered a Petition for an Extension of Time sufficient to effect a timely response with the fee for such extensions and shortages in other fees being charged, or any overpayment in fees being credited, to the Account of Barnes & Thornburg LLP, Deposit Account No. **50-4913**.

Respectfully submitted,
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